

MINUTES OF THE SAN DIEGO TIJUANA AIR QUALITY TASK FORCE
MEETING ON JULY 11, 2007

The task force convened at 4:20 pm at the Pueblo Amigo Hotel in Tijuana, Baja California. The following persons were in attendance:

Dave Fege	USEPA border office in San Diego
Cindy Smallwood	Interim Environmental Director Pechanga Band of Luiseno Indians, Temecula, California
Paula Stigler	Pala Band of Mission Indians
Jose Carmelo Zavala	Director, Centro Industrial de Gestion Ambiental
Israel Flores	BC State Environmental Protection Office
Saul Guzman	SEMARNAT Delegation in Baja California
Monica Tamayo	BC State Environmental Protection Office
Fernando Amador	California Air Resources Board
Rob Roy	La Jolla Band of Indians
Nikishna Polequaptewa	Hopi Tribe, Northern Arizona, La Jolla Band of Indians, Environmental Resources Office

Welcome remarks and presentations

Israel welcomed all to the meeting and informed who the three co-chairs of this task force are: Paula Stigler, Fernando Amador and Israel Flores.

Minutes Approval and Public Comments

There was no copy of the minutes from the previous meeting available in order to approve them, so they will be uploaded to the EPA Border website (www.epa.gov/border2012) and a copy of the minutes will be brought to the next meeting for their approval.

Saul Guzman informed that on July 12th there would be a meeting in Mexicali among people from the cities of Mexicali, Tijuana and from the State government regarding vehicle emission monitoring using remote sensors both in Tijuana and Mexicali during the month of August. In addition, he stated that on September 13th, in Mexicali, people from INE, UNAM, UABC and others would be presenting the progress regarding soil contaminants in Mexicali. This is the second phase of chemical characterization of soil contaminants. Perhaps this presentation could be given to this task force.

Dave Fege informed that the Texas General Land Office is putting together the XIV Border Energy Forum for Oct 18 & 19 in San Diego and all are invited to attend.

California Climate Change Program

Fernando Amador gave a presentation the California Climate Change Program, which was put together by the Climate Change Group in Sacramento. AB32 is the California

Global Warming Solutions Act, which was passed by the State Legislature in 2006. The projected impacts are 75% loss of the snow pack, a sea level rise of 1 -2 feet, 70 more extreme heat days per year, 80% more likely ozone days (days over the standard), 55% larger forest fires and twice the drought as compared to current situation. Transportation is the main cause, followed by industry and generation of electric power. CARB is looking to regulate these activities in order to reduce greenhouse gas emissions. The greenhouse gas emissions cap for 2020 is based on 1990 emissions and will be established in January, 2008. 1990 emissions were 400 million metric tons/year and for 2020 is expected to be 600 million metric tons/year; if all regulations are followed by 2050 there will be less than 100 million metric tons/year statewide. The Climate Action Plan will be a multi-agency effort; several advisory committees have been formed to aid in this effort and other entities will also be involved: Environmental Justice Advisory Committee, Economic and Technology Advancement Committee, Climate Action Team (and subgroups), Market Advisory Committee, Electricity Sector Recommendations Committee, California Climate Action Registry, Western Regional Climate Action Initiative, and local governments. More information is available at the ARB website.

Dave Fege commented that since most of our water comes from the snow pack, the reduction in the snow pack is going to be a great impact of climate change for the region. He added that in California 20% of the energy is related to our use of water (conveying water, wastewater treatment plants, etc) and given the relationship between energy and the generation of CO₂, there is going to be a push to find ways to reduce their energy use.

Saul Guzman said that the Mexican Federal Government is also establishing a series of actions for climate change and that the State of Baja California is preparing a greenhouse gas inventory but that more actions need to be defined and carried out.

Projects regarding Greenhouse Gases in Baja California

Israel Flores gave a presentation as to what the State of Baja California is doing regarding Climate Change. Presently, these efforts are solely by the State of Baja California without the guidance of the Mexican federal government, although in the future there are plans to request support from the Mexican federal government, the US federal government and the State of California.

1. The State needs to have a greenhouse gas emissions inventory, so they have just entered into a contract with the Mario Molina Center to prepare this inventory. It will be based on information from 2005 and it will include the types of fuels that are being used in each activity sector of Baja California. This inventory is an estimate based on the activities carried out in Baja California, the consumption of fuel and also based on the information contained in the federal and state permits; it will be compatible with the National Inventory from SEMARNAT (based on 2002 data) and with the California Inventory (based on 1990 data). The methods from the Intergovernmental Panel on Climate Change will be incorporated into this inventory. The inventory will include CO₂, methane, NO_x, all

hydrofluorocarbons, sulfur hexafluoride, etc. due to their capacity to retain heat. Hopefully, the inventory will be ready by October, 2007.

2. The State is preparing a Biogas Generation Inventory. This gas (mainly methane) is generated by the fermentation of organic compounds (landfills, dairy farm waste, water treatment plants, etc.). The purpose is to know how much gas is being generated and is not being used to create energy. It could be used to develop rural areas or have other uses. Once the inventory is prepared and the information is ready as to who the main generators are, strategies to use this gas will be identified. The Ensenada landfill is a good example of a biogas generating facility.
3. Presently, the State has a Program for High Environmental Performance, the purpose of which is for companies to change to cleaner production processes. The State gives recognition to companies that have made an effort to go beyond what the State Laws require. Another purpose of the program is to have complete information on the companies that do water recycling, emission reductions, etc. There are 52 companies presently enrolled in the program and to date the emissions of VOCs have been reduced by 17 tons. Another 64,500 tons of particulate matter were avoided by incinerating waste tires. The companies that participated in the program had an energy savings of 21,700 KW and the environment was not polluted by the emissions corresponding to generation of this amount of energy.

The air quality reports for 2003 - 2006 available at www.bajacalifornia.gob.mx/ecologia

Rob Roy asked how the methane gas was going to be “harvested”. There is a cow farm that has a bio-digester. These are enclosed areas where they place the organic matter at a certain temperature. The gas that is produced is converted to electricity for use by that same farm. Plans still need to be developed by the State but one idea is to have this type of bio-digesters where dairy farms can go deposit their organic waste.

Saul Guzman said that SEMARNAT has a department that looks into fostering carbon markets, especially for bio-gas and greenhouse gases. Some companies have already begun to work on this, such as the landfill in Monterrey. There is a great potential for using this gas from landfills. This year SEMARNAT will publish the guidelines for this type of actions.

San Diego Region Greenhouse Gas Emissions

Paula Stigler gave a presentation as to what is happening at a regional level as to Climate Change. Dr. Emily Young was unable to come to give this presentation but Paula volunteered to give it. The same impacts of Climate Change previously described in the presentation by Fernando Amador were included in this presentation as well. In addition, though, people’s perception on climate change has evolved and now the majority feels it is a serious issue and is willing to make some changes in their lives to reduce the impacts.

The San Diego Foundation has their own goals to raise public awareness about the local consequences of climate change and to catalyze broad regional actions to reduce greenhouse gas emissions. This foundation has helped fund research at local universities and museums that are doing greenhouse gas emissions inventories, studies on climate change and biodiversity. There is an ongoing “2050 Study” which looks at the way the region will look in the next 40 years. As of June 28 the San Diego County Mayors (Chula Vista, Del Mar, Imperial Beach, La Mesa, San Diego & Solana Beach) signed an Environment Protection Agreement. Cities will start to base their planning on how to reduce greenhouse gas emissions. The climate protection policies in place in San Diego have a 15% reduction of CO2 goal for 2010 and are seeking community actions to aid in this reduction. The City of San Diego has focused on land use, transportation, energy efficiency and alternative energy use, sustainable building practices and recycling to address climate change. They have a Multiple Species Conservation Plan that includes open space conservation and walkable urban communities. Transportation is a big issue so the City is including into their plan increasing the fuel efficiency of their fleet vehicles, reduce the number of fleet vehicles, employee education programs, use of alternative fuels for collection trucks, using methane coming from landfills, using solar energy at treatment plants. San Diego is the number one green power purchaser in the United States. Building retrofits or new construction of buildings of more than 10,000 ft must Meet the Silver Standard Certification. Clean energy solar panels are being placed on 10 City buildings that produce almost 516, 000 kilowatt/hours annually. The City of San Diego has achieved a 52% diversion rate as to recycling, and the curb-side recycling program serves 270,000 residents. Possible next steps are to create a facility to recycle construction and demolition material and to develop an urban heat island mitigation policy and program and to develop and adopt an environmentally preferable purchasing policy.

Cindy Smallwood stated that the Pechanga Indians just held their annual Earth Day and what was said there is that the Alaska natives are losing their homes due to sea rise, so we all need to be aware that climate change is actually having a severe effect on some communities and that whatever actions are taken here will have a positive effect.

Paula informed that the Campo Indians have signed on to the Climate Action Registry and hopefully Pechanga Indians will also sign on.

Nikishna mentioned electric bikes that are very energy efficient and are capable of up to 50 mph speeds and that hopefully many people would buy them, to reduce human's footprint.

Rob Roy said he hopes there will be a recycling program for multi-family buildings and that the City has stopped allowing many of their vehicles to idle, which used to be a common practice.

Israel asked whether tribes other than the Campo Indians have environmental strategies that they follow. Paula answered that there were no actual activities but the topic is present at tribal discussions. Rob said that they are putting together a presentation for the

La Jolla Tribal Council on green building practices. Nikishna has talked to tribal council members about environmental architectural design, site planning, etc and there has been great interest in the topic.

Israel informed that on July 20, they were going to host a Forum on Eco-Efficiency at the Marriott Hotel at 8 am. There will be experts and specialists in the field of green building. Dr. Cristina Cortinas de Nava, the former National Coordinator for Waste Management in Mexico, will also give a presentation. The Task Force fact sheet has the link for further information.

U.S. Tribes Air Monitoring Collaboration Project

Nikishna gave a presentation on the Tribal Air Collaborative. Paula Stigler began this initiative. Through Nikishnas's work, in the course of one month the La Jolla Tribe went from having no air pollution program to having a full program. The Tribe purchased air-monitoring equipment, which has been lent to other Tribes so they can measure PMs. Tribes have also received some training for the use of this air quality equipment. The Tribes are located along a corridor so the air quality in one area affects the air quality in the other areas as well. In the case of the La Jolla Indians, there are pollutants that enter and settle in the valley during the entire summer, until the winter winds come and blow away this air pollution. Presently, the Tribe is trying to establish baseline information to find out what the air quality is in that area. The Institute for Tribal Environmental Professionals (ITEP), which was established to help Tribes with their environmental resource management created a tribal data toolbox (a database) to keep track and manage all the data. This will enable the different Tribes to compare and analyze the data. There is interest in doing a passive ozone study with equipment donated to the Tribe. Nikishna will be giving a presentation to the local tribal communities to tell them what the baseline information is and how that affects them. He also created a website for the air quality program of the Tribal environmental department. The air-monitoring program indicates, in real-time, wind direction, solar radiation, rain, barometric pressure, temperature, etc. It can print graphs of daily, weekly, monthly or yearly trends for any one of the variables. ITEP trains individuals as to how to use the equipment, how to manage data, etc., they also have free equipment loans. They weigh the particulate matter without any charge, they have technical training, a learning center that can be used for free, online classes on air pollution, and a resource information center. They also have an Environmental Educational Outreach Program with short internships (\$500) and long internships (10 weeks), in which Nikishna participates. The expected results from Nikishna's work is to create GIS maps indicating which Tribes have air programs, what the status is of the air quality for the different Tribes and reflect this information on maps to see where the data gaps exist. Also, to correlate the data among them, to have real time on the website, to monitor meteorological trends, to create an air quality index for the Tribes, especially because many tribal members have higher rates of lung and heart disease than the rest of the U.S. population.

Israel asked what air quality standards do the Tribes follow? EPA standards or California standards or do the Tribes have their own? Answer: federal EPA standards. Paula said

that the process to set one's own standards is very laborious; the only Tribes that have their own standards are the Navajo Nation and perhaps the Gila River Tribe. The standards have to be at least the same as the federal ones, if not higher.

Update on the Border 2012 National Coordinators Meeting

Paula gave an update as to the Border 2012 National Coordinators' meeting held in San Antonio in May. At the coordinators' meeting there was discussion on the following:

- ✓ The coordinators would like the task forces to focus on climate change issues.
- ✓ A new air pollution standard has been implemented but there is no counterpart for it in Mexico.
- ✓ The EPA is under a mandate to tighten the ozone standards.
- ✓ The border air data analysis and its current indicators, whether these are sufficient. What additional value can be obtained from a more in depth analysis?
- ✓ The importance of simulations using data from stakeholders on the border region.
- ✓ Additional gathering of information is necessary in rural areas.
- ✓ Similar measuring standards across the border should be emphasized.
- ✓ Greenhouse gases need to be included in the air quality plans.
- ✓ Use of commonly available data from communities, such as fleet size and energy use.
- ✓ Air quality should be the primary indicator but that other secondary indicators should be evaluated along with their impact.
- ✓ There is a need to re-evaluate the current analysis of methodology.
- ✓ Evaluate the efficiency of monitoring networks
- ✓ Organizational structure of Border 2012 and the air task forces. Easy to fund pilot projects but hard to fund full scale programs. So need to collaborate with larger sums of money.
- ✓ Need to integrate communication between the Environmental Pollution Forum and the Environmental Health Forum.
- ✓ Importance of promoting projects outside of the working groups and political costs when assuming debt for air quality projects. Bring in health benefits of projects.
- ✓ Need to improve communication among task forces.
- ✓ Partnering for fundraising. Create a fund specifically for air pollution and bring in the polluters.
- ✓ Informing the general public outside the region as to why they should be concerned about border region pollution.

Israel added to Paula's report that since the Border 2012 Program is at its halfway point, the goals and objectives need to be reviewed to see if there need to be any revisions or if the Program is on the right track.

Update on the Task Force Fact Sheet

Dave Fege spoke about the Task Force fact sheet. He said that Domingo Vigil is who has worked very hard to put together the fact sheet and that the three co-chairs and Dave

himself have given a lot of input for the fact sheet. The co-chairs wanted to have a printed outreach mechanism to give to the public at other meetings or for people coming to this task force for the first time. The fact sheet describes the mission and goal of the TF, when meetings are held, who the co-chairs are and how to contact them, the websites and the links. There is also a summary of the current bi-national projects under preview of the TF, such as the brick kiln project and the truck retrofit project. If there are any comments, they need to be sent to the co-chairs. Hopefully, the fact sheet will work to attract other stakeholders to the meeting. Nikishna commented that the Tribal Chairmen's Association contact information should be added to the contact information, as well as a Tribal logo.

Brick Kiln Project Update

Israel gave an update on the Brick Kiln Project. This is just a demonstration project given the limited resources available from Border 2012. In 1999 SEMARNAT did a brick kiln inventory. These brick kilns exist along the entire border area. There are three main steps in the brick manufacturing process: clay preparation, brick formation and cooking. The present brick kilns burn wood into the open air. The Tecate area was identified as the best one for this project. By the end of this month (July) the first brick kiln should be ready and by the end of August, all four brick kilns should be ready. The hope is that brick makers will realize that this technology is more efficient and that by using the new technology they will need less wood to burn, they be generating less pollution, will have to work fewer hours and there will be less risk because they no longer need to be climbing on top of the brick to place a cover to keep the heat in. They will have fewer broken bricks so their productivity will increase. However, the investment for each brick kiln is \$5000 dollars, which is too high for brick makers. A study is necessary to see if this activity will be sustainable in the future depending on the soil's characteristics. A thorough study needs to be done including the soil's characteristics of the region to determine how long the raw materials will last, what the economic and commercial conditions are, how likely is it that these bricks will be bought? These two lines of work will be implemented in the next two years, starting the third quarter of this year. Israel commented that it was very difficult to change the mind set of the brick layers in order for them to accept trying out this technology.

Paula suggested that a study be carried out as to the health of the brick makers to see if it improves by using these new kilns. This could be a further incentive to use these kilns. Israel said that some people from the Health Ministry have approached them because they are also interested in this aspect.

Nikishna suggested that concentrated solar energy (between 2000 and 4000 degrees Fahrenheit) be used to bake the bricks, this way there would be no pollution from wood burning activities.

Ultra Low Sulfur Diesel at the Border Region

SEMARNAT and PEMEX have been announcing the availability of ultra low sulfur diesel (less than 15 ppm) in the border region. Now this kind of diesel is available in Mexicali and Tijuana.

General Issues

The next meeting for this TF is scheduled for October 10th, in National City (site to be confirmed). The agenda will be sent out about 10 days before the meeting. Any topics can be suggested to the co-chairs for inclusion in the agenda. Attendees were asked to start thinking about projects to be submitted for funding by USEPA. Project proposals will compete with proposals from the other Border 2012 task forces.

End of meeting.